BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

IN THE MATTER OF:	)
	)
Revisions to Antidegradation Rules:	) R01-13
35 Ill. Adm. Code 302.105, 303.205,	)
303.206 and 106.990-106.995	)

MEMORANDUM OF LAW AND SUPPLEMENTAL TESTIMONY OF THE ENVIRONMENTAL LAW AND POLICY CENTER, FRIENDS OF THE FOX RIVER, PRAIRIE RIVERS NETWORK AND SIERRA CLUB

The Environmental Law and Policy Center of the Midwest, Friends of the Fox River, Prairie Rivers Network and the Illinois Chapter of the Sierra Club (collectively "Environmental Groups") submit this memorandum of law and supplemental testimony in support of adoption by the Board of antidegradation standards that will effectively maintain the chemical, physical and biological integrity of Illinois rivers, streams, lakes and wetlands.

This memorandum provides legal and factual background regarding antidegradation policies and standards, the Environmental Groups' views of the issues that have been raised in this proceeding, and specific proposals for improvements to the antidegradation standard proposed by the Illinois Environmental Protection Agency ("IEPA"). In addition, questions relating to adoption of Agency implementation procedures (Part 354, a preliminary draft of which is attached as Exhibit B to the IEPA Motion for Acceptance, filed August 29, 2000) will be addressed to the extent that the implementation procedures are relevant to this Board proceeding.

I THE CLEAN WATER ACT ANTIDEGRADATION POLICY

The purpose and proper interpretation of the federal antidegradation policy should be viewed in the context of the goals of the 1972 Clean Water Act ("CWA"). The objective of the CWA "is to restore and maintain the chemical, physical and biological integrity of the Nation's waters." 33 USC§ 1251(a). In the CWA, Congress set as an interim national goal that "wherever attainable ... water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983." 33 USC §1251(a)(2). Water quality was to improve not degrade. Congress plainly did not anticipate that large numbers of new discharges and other sources of pollution would be licensed after the passage of the Act as it established *elimination of all discharges* by 1985 as a national goal. 33 USC § 1251(a)(1).

A. Enactment of Federal and Illinois Regulations

The antidegradation policy actually proceeded passage of the CWA. As was explained by the United States Environmental Protection Agency ("U.S. EPA") in the Water Quality Standards Handbook, Second Edition, EPA 823-B-94-0005a ("USEPA Handbook") :

> The first antidegradation policy statement was released on February 8, 1968, by the Secretary of the U.S. Department of Interior. It was included in EPA's first Water Quality Standards Regulation ... and was slightly refined and re-promulgated as part of the current program regulation published on November 8, 1983 (48 F.R. 51400, 40 CFR 131.12). Antidegradation requirements and methods for implementing those requirements are minimum conditions to be included in a State's water quality standards. Antidegradation was originally based on the spirit, intent and goals of the Act, especially the clause "... restore and maintain the chemical, physical, and biological integrity of the Nation's water" (101(a)) and the provision of 303(a) that made water quality standards under prior law the "starting point" for CWA water quality requirements.

The original 1968 policy adopted by Interior Secretary Stewart Udall provided :

> Waters whose existing quality is better than the established standards as of the date on which such standards become effective will be maintained at their existing high quality. These and other waters of a State will not be lowered in quality unless and until it has been affirmatively demonstrated

> to the State water pollution control agency and the Department of Interior that such change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently possible in, such waters. ...
> U.S. Dept. Interior Federal Water Pollution Control Administration, Compendium of Dept. of the Interior Statements on Non-degradation of Interstate Water 1-2 (Aug 1968) *reprinted in*, Harleston, John, What is Antidegradation Policy:Does Anyone Know?, 5 S.C. Envtl. L.J. 33, 40 (1996)

Illinois' current nondegradation policy, adopted by the Board in 1972 in PCB 71-14 and now contained at 35 Ill. Adm. Code 302.105, plainly is related to the 1968 federal policy. It states :

> [W]aters whose existing quality is better than the established standards at their date of their adoption will be maintained in their present high quality. Such waters will not be lowered in quality unless and until it is affirmatively demonstrated that such change will not interfere with or become injurious to any appropriate beneficial uses made of or presently possible in, such waters and that such change is justifiable as a result of necessary economic or social development.

In adopting this standard, the Board explained:

> This preserves the present prohibition on unnecessary degradation of waters presently of better quality than that required by the [water quality] standards, recognizing that the standards represent not optimum water quality but the worst we are prepared to tolerate if economic conditions so require. In the Matter of Water Quality Standards Revisions, (PCB March 7, 1972) 71-14, p. 11.

Clean Water Act Antidegradation Requirements and the Established Illinois Regulations

The regulation that states the federal antidegradation policy, 40 CFR 131.12, requires that states provide essentially three types of protection for their waters. Following this regulation, the standards adopted by the Board in this proceeding must, "at a minimum, be consistent with" the following:

(1) Maintenance of Existing Uses (Tier I)

The first requirement for an adequate state antidegradation policy is maintenance of existing uses:

> Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. 40 CFR §131.12(a)(1)

Section 4.42 of the U.S. EPA Water Quality Standards Handbook explains:

> No activity is allowable under the antidegradation policy which would partially or completely eliminate any existing use whether or not that use is designated in a State's water quality standards.... Non-aberrational resident species must be protected, even if not prevalent in number or importance. Water quality should be such that it results in no mortality and no significant growth or reproductive impairment of resident species. Any lowering of water quality below this full level of protection is not allowed. (p. 4-5)

The Environmental Groups believe strongly that, with the assistance of the Illinois Department of Natural Resources ("IDNR"), IEPA must make greater efforts to assure that new or increased discharges of pollutants will not harm aquatic life in receiving waters. Although there are other provisions which protect existing uses from some threats, antidegradation has a critical role to play in protecting existing uses of Illinois waters, including protection of indigenous aquatic life.

Generally, proper protection of resident species requires knowledge of the biology of the receiving waters sufficient to determine if particularly sensitive species are present. Individualized consideration of whether the proposed new pollution will affect the species present is also normally necessary. Protection of recreational and other uses also often requires individualized treatment.

The antidegradation standard for protecting existing uses is particularly important with regard to activities that harm water quality that generally are not subject to NPDES permitting, such as stream channelization, filling wetlands and dam construction. These activities are subject to state oversight through the Section 401, 33 USC §1341,

certification process which prohibits the Corps of Engineers from issuing a permit to fill waters of the United States unless the state has certified that the activity will not violate state water quality standards, including its antidegradation standard. See, PUD No.1 of Jefferson County v. Washington Dept. of Ecology, 511 U.S. 700 (1994).

The latest Illinois Water Quality Report states that hydromodification and habitat modification are responsible for the impairment of over 3000 miles of Illinois' rivers and streams. (Ex.1) Nonetheless, new permit requests for permission to destroy wetlands and channelize streams continue to be submitted and approved by the Corps and IEPA. Illinois must work more rigorously to assure that projects that threaten to degrade the biological or physical integrity of Illinois waters are denied 401 certification.

(2) Allowing Only Degradation Necessary to Accommodate Important Economic or Social Development (Tier II)

40 CFR 131.12(a)(2) provides:

> Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

The central purpose of this provision is to preserve water quality to the extent possible. As was stated by the Board in 1972 in adopting the present "nondegradation" standard, the numeric and narrative standards "do not represent optimum water quality but the worst we are prepared to tolerate if economic conditions so require." (*Supra* p. 4)

To put the matter another way, the assimilation capacity of a water is a public resource that should not be frittered away. During the November hearing, Toby Frevert explained:

> [T]he underpinnings of this whole program is that additional - - that residual capacity of the stream to accept waste is, indeed, a public resource. And if that public resource is allocated to an individual entity, then there ought to be some public role playing in the allocation of that resource to that individual entity and there ought to be some indication of why that is generally consistent with the good of the public at large. (Frevert Testimony, Nov. 17, 2000, Tr. 35-6)

IEPA's Frevert elaborated on this concept later during the November hearing:

> The antidegradation policy at the federal level basically says [that] any increment of water quality better than what you define as the floor necessary to protect that existing use is a public resource, and that public resource shall be allocated to other people consistent with the general intent of the public at large and their overall social and economic goals. (Tr.104-05)

The amount of assimilative capacity of a water used by one activity is assimilative capacity that cannot be used by another activity. Pollution unnecessarily allowed to one new or increased discharger may stop important social or economic development that cannot take place because the required capacity has been squandered.

A few additional points should be made with regard to this provision. First, the regulation is not limited in its scope to waters that are of unique or exceptional "high quality." The regulation speaks rather of waters with quality that "exceeds levels necessary" to protect uses. Waters need not exceed this level very much. D- (as well as A+) members of the class of waters are covered because they pass standards, even if only just barely.

Thus, although there are numerous instances of this provision being referred to in letters and guidance as one protecting "high quality" waters, speaking of this regulation

as governing "high quality" waters is really a misnomer. Every water that is meeting any of the water quality parameters adequate to protect existing or designated uses is covered. (Frevert Testimony, Nov. 17, 2000, Tr. 118, 122-3)

Second, the waters must be looked at on a parameter-by-parameter basis. (Frevert Testimony, Nov. 17, 2000, Tr.122-24; See also, U.S. EPA Handbook p.4-8 B "EPA believes that its antidegradation policy should be interpreted on a pollutant-by-pollutant and waterbody-by-waterbody basis") To repeat Mr. Frevert's example, the fact a water is failing to meet the ammonia standard does not mean that the water is not protected from unnecessary new loadings of copper. The Nation certainly will not meet its goal of restoring and maintaining the chemical integrity of its waters if it allows unnecessary new loadings of a pollutant just because the water is violating standards for another pollutant.

Finally, at a minimum, for lowering of water quality to be "necessary to accommodate important economic or social development," it must be the case that the development cannot practicably go forward without allowing lower water quality. In most cases, proper consideration of alternatives will require estimating the costs of the various manufacturing processes and treatment technologies that would allow the expansion or other development to proceed without, or with less, lowering of water quality.

(3) Protection of Outstanding Resource Waters (Tier III)

The third major provision of 40 CFR 131.12 (a)(3) provides:

> (3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

This provision for Outstanding National Resource Waters essentially requires states to establish provisions for the state and its citizens to declare that the assimilative

capacity of certain waters is off limits for new loadings. The public must be allowed to reserve water quality for the health of the environment and itself.

I I. THE AGENCY PROPOSAL

A. New Illinois Regulations are Needed.

Illinois currently has a "nondegradation" policy patterned on the 1968 federal policy but Illinois' regulations do not comply with current federal law. The federal regulations require that a proper state antidegradation standard contain more safeguards than are contained in Illinois' nondegradation policy. Most obviously, 40 CFR 131.12(a)(3) requires that states provide for designation of "outstanding National resource" waters that will be protected from any degradation. Other of the principles contained in the federal regulations are not spelled out clearly in the current Illinois nondegradation policy.

Most seriously, 40 CFR 131.12(a) requires each state to "identify the methods for implementing" the state's antidegradation policy. Further, the adopted antidegradation policy, together with implementation rules, must be presented to U.S. EPA for approval. 33 USC §1313(c). Illinois has not properly adopted antidegradation implementation procedures under either state or federal law. As a consequence, Illinois "is essentially on notice that the Illinois program is deficient in that we don't have a fully promulgated federally approved NPDES implementation procedure to deal with the antidegradation standard." (Frevert Testimony, Dec. 6, 2000, Tr. 130)

B. Current IEPA Application of Antidegradation Principles in Permitting Decisions Is Flawed

IEPA's Toby Frevert testified that little was done to enforce the nondegradation policy for 15 years. (November 17, 2000, Tr. 26-7) Frevert further testified that, more

recently, IEPA has applied antidegradation principles in considering permits but explained that the Agency is not currently documenting its antidegradation decisions adequately.(November 17, 2000, Tr. 34, 36)

This is not the place to debate specific past or current Agency permits or permit writing proceedings. Still, the Environmental Groups do not want it misunderstood by the Board or others that we believe that IEPA has applied federal antidegradation policy or 35 Ill. Adm. Code 302.105 properly or legally even in recent permitting decisions. IEPA has sometimes failed, even very recently, to assure that existing uses are protected and has often failed to make any real effort to determine if new or increased pollution of waters now meeting standards is necessary to accommodate important economic or social development.

The importance, then, of these proceedings should not be underestimated. While the current Illinois regulations incorporate many of the principles under consideration here, IEPA implementation of the current Illinois nondegradation standard has been very inconsistent. Also, IEPA, permit applicants and the public have been in the position of having to play a game without proper written rules. The standards that come out of this proceeding and the implementing procedures adopted by IEPA will have a major effect on Illinois NPDES permits and 401 certifications.

C. Overview of the IEPA Proposal to the Board

In 1998, the Agency began a series of public information meetings and workgroup conferences designed to develop new antidegradation standards for Illinois. The Agency began this process because of its recognition that new regulations are federally mandated. (Frevert Testimony, Nov. 17, 2000, Tr. 29) After two years of discussions involving several drafts and eight conferences, the Agency filed its proposed standards with the Board in August 2000. (Frevert Testimony, Nov. 17, 2000, Tr. 9, 14)

Leaving aside wholly technical changes, the Agency proposal breaks down into three major parts, the second of which addresses a number of different topics:

Proposed Sections 106.990 through 106.995 deal with petitions and proceedings for designation of "Outstanding Resource Waters"

Proposed Section 302.105 has five subsections -

Subsection (a) addresses protection of existing uses

Subsection (b) sets forth the standards for protection of waters designated as ORWs

Subsection (c) addresses the demonstration that must be made before permission is given to increase pollutant loadings to waters now having water quality better than the minimum necessary to meet established water quality standards.

Subsection (d) sets forth certain activities not subject to an antidegradation demonstration, and

Subsection (e) makes a clarification regarding antidegradation standards for Lake Michigan.

Proposed Sections 303.205 and 303.206 define "Outstanding Resource Waters" and provide for a place in the Code for listing waters designated as such.

Attached to the Agency's proposed standards (as Exhibit B) are draft Agency implementation rules (Part 354). The Agency is not submitting the draft implementation procedures for formal consideration by the Board but wants the Board to be aware of these draft procedures in considering the proposed standards. (Frevert Testimony, Nov. 17, 2000, Tr. 20, 24)

III THE BOARD SHOULD ADOPT RULES THAT ASSURE THAT NPDES PERMITS AND 401 CERTIFICATIONS MAINTAIN WATER QUALITY.

The parties that are participating in this proceeding agree on much. Still, there are a number of issues that must be addressed by the Board.

A. The Board Should Not Fashion a "Significance" Threshold or Create a "De Minimis" Exemption from Review

Much of the testimony in the hearings held in these proceedings has related to the general issue of how to address relatively minor increases in pollution loadings to waters that have better water quality than the bare minimum, the Tier II protections. It has been suggested that very small increased loadings do not really qualify as "degradation." It has also been suggested that an analysis of alternatives to allowing new pollution or of the importance of the proposed activity for economic or social development is not called for as to "insignificant" pollution increases. Very similarly, it has been proposed that an exemption from having to do an antidegradation demonstration should be allowed for "de minimis" new pollution.

The Environmental Groups believe that basically all NPDES permits or 401 certifications allowing for new or increased loadings should be subject to at least some antidegradation review. All new loadings constitute degradation and are significant. Further, the Board should not attempt to carve out any exception from antidegradation analysis for "minor" or "de minimis" degradation. Alternatives always should be at least briefly considered and the economic and social value of the activity for which the new pollution is needed should be confirmed, although in many cases this will be obvious.

However, the differences between the parties to these proceedings should not be exaggerated. No one claims that small non-toxic increases in loadings should be treated in the same manner as large or highly toxic increases. The issue is whether some types of degradation are so small that they should be allowed without considering alternatives at all, without considering whether the social or economic development they promote is important, or given a complete pass from antidegradation review.

For the following reasons, the Board should not attempt to fashion any "significance" limitation or "de minimis" exception from the requirement of at least some antidegradation review before new loadings are permitted:

1. <u>Every increase should be given at least some review.</u> - Little pollution sources add up. No unnecessary pollution should be allowed in the state's waters. "One

molecule of dioxin in the Mississippi River is significant if it is avoidable at no cost." (Frevert Testimony, Dec. 6, 2000, Tr. 124).

Put another way, the requirement that new pollution be allowed only if it is necessary to accommodate important economic or social development means that pollution prevention must be considered before new pollution is allowed. Numerous state laws and Board decisions strongly support broad pollution prevention programs. E.g. 415 ILCS 85/1 et seq.; 415 ILCS 115/1 et seq.; In Matter of Proposed Amendments to 35 Ill. Adm. Code Subtitle C, 92-8 (April 4, 1996) p.6 ("Pollution prevention is undisputably one of the essential elements in maintaining environmental quality"). Illinois waters certainly are deserving of such pollution prevention efforts.

2. There is no reason under the proposed regulatory scheme to exempt any permits for increases in pollution from receiving some level of review. - It has been argued that a good reason not to require an antidegradation demonstration for a permitting decision involving a small new loading is that such an analysis will cost the Agency and the discharger much time and money. Under some state antidegradation schemes it might well be the case that every antidegradation analysis involves great cost and expense, but that is not the sort of system that is being proposed here. The Agency's proposal does not contain exemptions for small or insignificant increases in pollution, but it also contains very little in the way of minimum procedures for conducting the antidegradation analyses. The cost for many antidegradation analyses will be insignificant.

The Agency has decided to opt for flexibility that shapes every antidegradation analysis to the particular facts instead of trying to set down in advance rules that would describe the extent of analysis needed. While refusing to say that certain activities would be exempt from antidegradation analysis under the proposed standards and rules, Mr. Frevert repeatedly testified that the activities might get only a very abbreviated analysis. (Frevert Testimony Nov.17, 2000, Tr. 61-2, 73, 79-80, 99, 110-11, 127-28) The level of

antidegradation demonstration required under the proposal will "vary from case to case." (Tr. 72) "We have got a sliding scale here that intends to target our resources and your resources where the significance of the decision was more apparent and back off in those cases where we know the relative significance still warrants some review, but it warrants a lesser review." (Tr. 73-4) In some cases, the antidegradation demonstration will consist of a few minutes consideration of the proposed new loading by the Agency followed by the creation of a document by the Agency describing its reasoning for the public. (Frevert Testimony, Nov. 17 2000, Tr. 99, 118, 128, 197, Dec. 6, 2000 Tr. 145)

Frankly, the Environmental Groups have considerable misgivings about the lack of minimum procedural safeguards prescribed by the draft rules. Should not the standards or rules require a bioassay of the receiving water always before new pollution is allowed? Should it not be explicitly required that antidegradation analyses cost out all possible alternatives to make sure that there are no feasible alternatives to allowing the level of new pollution requested? Should not rules require a signed certification from a environmental professional attesting to all of the facts relevant to the antidegradation demonstration? Antidegradation demonstrations for major new facilities, for toxic, endocrine disrupting or bio- accumulative pollution, and for new pollution going into streams containing rare species definitely should include such procedures and safeguards, as well as others.

There is a serious danger under these proposed regulations that the Agency will give quick and dirty treatment to cases that require a full demonstration by the applicant. Indeed, the Environmental Groups submit that it is much more likely that the Agency will give abbreviated treatment to some significant new loadings or hydrological modifications than that the Agency will subject permit applicants to serious delay or cost who are seeking permission for tiny increases in loadings of pollutants. Nonetheless, we are willing to try for now the "case by case" approach being proposed by the Agency, recognizing that the other side of having some antidegradation analysis given to all

degradation is that there is only a very low minimum level of analysis that is always required.

3. There is no good way to define "significance" or carve out a de minimis exemption. - The Agency's flexible approach of treating each case of degradation on a case by case basis would make less sense if there were an easy way to determine in advance what cases are most important and most worthy of a more detailed antidegradation analysis. There is not.

Most of the de minimis tests that have been suggested allow degradation freely if it is no more than a certain percentage of the remaining assimilation capacity. For example, if the water quality standard for a particular pollutant X is 10 units/liter and the current level in the water is 2 units per liter, 8 units per liter of assimilation capacity remain. Parties who argue for a de minimis test of 10% of remaining capacity ask that an Applicant A seeking a permit that would load the water up to .8 additional units of X per liter should not have to do an antidegradation demonstration. If a permit giving .8 is granted, another new loading that would cause the stream to be degraded up to .72 units per liter could be permitted without an antidegradation demonstration.

There are a large number of reasons why any such proposal should be rejected. First, unnecessary degradation should not be allowed simply because it is coming in relatively small steps. Further, the mere fact that Applicant A asked first to use this assimilative capacity is no reason to think that A needs it or that A's activity has any economic or social value. By giving A this for nothing, less capacity remains for an Applicant B who might actually need it and whose activities might be very important for the community. Further, Applicant A can keep increasing its discharge by 10% of the remaining assimilation capacity as often as it can apply for a new permit modification. By allowing Applicant A to take numerous bites, water quality can be degraded to the point that it is just barely meeting standards and existing uses are threatened, without Applicant A ever being required to do an antidegradation demonstration.

A slightly more sophisticated exemption could be written that limits use of the percentage allowance to increases under a certain fraction of the total assimilation capacity. For example, a state might allow degradation, without a demonstration of need, up to 10% of the assimilation capacity as long as 30% of the total capacity remains. To use the previous example, applicants would be allowed to grab portions of the remaining assimilation capacity in 10% increments up to the point that the water has 7 units of X per liter. This more sophisticated proposal is less horrible than allowing everything to be eaten in small bites. At least something is saved for pollution that is really necessary. But why should the public give any of its scarce resource, clean water, to someone who has not shown that the public will benefit?

Moreover, focusing on assimilation capacity introduces other problems for environmental policy and fairness and encourages unnecessary and dangerous discharges into large water bodies. Allowing an unnecessary discharge of 10% (or even 5%) of the assimilation capacity of the Mississippi River would allow a huge unnecessary new discharge of many pollutants. Also, what should be done regarding persistent pollutants, bioaccumulative pollutants, and pollutants for which there are no numeric standards but there exists credible evidence that they disrupt hormones or are otherwise harmful to human or aquatic life?

4. Practical considerations do not support requiring a determination of significance or establishing a de minimis exemption - It has been argued that minor increased loadings should not be subjected to an antidegradation analysis due to practical considerations. But allowing totally unjustified new pollution up to some arbitrarily drawn level is a not good for the environment, state government, or even for many dischargers.

A limitation or exception from the antidegradation demonstration requirement does not help the Agency or applicants at all if it is as hard to determine whether something is “insignificant” or fits into an exemption, as it is to do an antidegradation

demonstration. (Frevert Testimony, Nov. 17, 2000, Tr. 82-3, 133) A proper analysis of whether something is significant or de minimis involves gauging at least seven factors:

- the assimilation capacity of the stream that will be removed by the proposed new pollution

- the assimilation capacity of the stream that will remain if the new pollution is allowed

- the total amount of the discharge

- the sensitivity and rarity of the aquatic species that might be affected

- the toxicity and scientific uncertainly associated with the pollutants involved

- the likelihood that others will need to use the requested assimilation capacity and

- the ease with which potential alternatives might be identified.

It is as easy to perform and document a simple antidegradation analysis as it is to weigh these factors and document a decision that the new loading is insignificant.

American Bottoms, through its expert, Robin L. Garibay, REM, testified in the December hearing that it is not difficult to fashion a significance test or de minimis exemption that is convenient and easy to apply. American Bottoms correctly points out that the Agency already must calculate the "reasonable potential to exceed" water quality standards as part of permitting. From this calculation, American Bottoms claims that the Agency can easily determine the percentage of the remaining assimilation capacity that the applicant seeks to use. In American Bottom's view, if the Board adopts a significance test or de minimis exception that simply focuses on percentage of assimilation capacity requested, the Agency and permit applicants will have a simple way of avoiding having to do many antidegradation demonstrations.

The Environmental Groups agree that the type of test proposed by American Bottoms is not impossible to apply. In fact, it is far too simple. It is so simple it allows

gaming the system, treats all waters alike no matter what rare or sensitive species are in them, ignores the persistence or scientifically uncertain nature of pollutants, treats conventional and bioaccumulative pollutants alike, overly relies on the protectiveness of the water quality standards, ignores other potential demands on the remaining capacity, and allows huge new discharges without any showing of necessity as long as the discharger can find a big enough water in which to dump its waste waster.

The example given of how a de minimis exemption can work actually shows why no such exemption should be accepted. In her testimony, Ms. Garibay discussed a project she worked on in Indiana:

> Knowing that the antidegradation demonstration process can be cumbersome, time-consuming, and more importantly for [Ms. Garibay's client] unpredictable in outcome, part of the overall project was to manage the wastewater to assure that the effluent quality would be at levels below the well-defined de minimis concept in this state. An assessment of the proposed loading increased to show that the impact [on] the receiving stream would be below ten percent of the unused capacity was presented to the State Environmental Agency, and it was presented as part of the permit modification application.
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> . . . . . .
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> So the project was engineered to assure that the discharge level would be less than six parts per billion for lead. This was not the most cost effective way for the facility to manage their wastewater, but in managing their wastewater this way they knew that they were going to have a de minimis - - they would fit the definition of de minimis and the project could move forward in a timely fashion. (Dec. 6, 2000, Tr. 101-02)

The Environmental Groups have no knowledge of this particular project and have no reason to doubt that Ms. Garibay did what was best under the circumstances. However, the sort of regulatory system and engineering designed to fit into an arbitrary legal exemption described by Ms. Garibay is exactly what the Board should eschew. Illinois should not create a process that is unnecessarily "cumbersome", "time-consuming,"or "unpredictable" and then attempt to offset those flaws through creation of arbitrary exceptions that can be exploited by those with clever engineers.

Fortunately, there is nothing in the Agency's proposal that would necessarily make Illinois' system operate in a cumbersome or unpredictable manner. More critically, the Board should not write definitions or exceptions into the rules which encourage applicants to engineer their projects to avoid an antidegradation analysis. Again, we do not know what actually happened or should have happened in the project to which Ms. Garibay refers. Still, her description could well describe an instance where an applicant sacrificed using the most cost-effective way of handling its waste and otherwise skewed its engineering in order to fit into an arbitrary exemption. The applicant may thereby have been allowed to create pollution that would have been avoided had alternatives been considered. It is also entirely possible that additional air pollution or solid waste will be created by engineering to fit into an arbitrarily drawn de minimis exception. This is the very opposite of what sound pollution prevention promotes.

5. <u>The board must exercise great care before adopting antidegradation provisions from other states and regions.</u> - Various examples of regulations from other states (Hearing Exhibits 20-22) have been submitted to the Board that contain various significance tests or de minimis exemptions. It has been suggested that Illinois should adopt exceptions from other states and that, if those states were approved by U.S. EPA, U.S. EPA might approve broad exceptions in Illinois rules.

This line of argument should be approached with great caution by the Board. First, we trust that the Board is trying to do what is best for Illinois and its environment, rather than trying to create the weakest program that U.S. EPA can tolerate.

Second, portions of rules from other states should not be adopted without looking at the overall programs established by the rules. A state that requires that elaborate showings be made for every antidegradation demonstration that is required needs exceptions much more than Illinois should need under its flexible "case by case," "sliding scale" approach.

Finally, it is clear that providing broad exceptions from antidegradation demonstration requirements is one of the ways that a state policy can run afoul of U. S. EPA. One of the sets of rules that was presented to the Board was those of West Virginia. (Hearing Exhibit 22) We do not know the details of what U.S. EPA found objectionable in the West Virginia rules but it is known that a letter was sent by Region III of U.S. EPA to the West Virginia Environmental Quality Board rejecting West Virginia's proposed procedures because of their "unduly narrow scope of Tier II review, multiple exemptions to such review, and the failure to achieve the 'highest statutory and regulatory' requirements for all sources." (Ex. 5)

B The Occasions on which an Antidegradation Demonstration Is Required

There has been concern expressed regarding the possibility that an antidegradation analysis might be required every time a discharger's loading increases even though the increase is covered by an existing permit. For example, it is feared that a discharger that has a permit to discharge 1000 lbs. per day of a pollutant but that has not discharged more than 500 lbs per day during the first year of its permit, might be required to demonstrate a need to discharge 900 lbs per day before it may use its permit to do so.

But no one has argued that an antidegradation analysis is needed on every occasion that a discharger wishes to discharge more than it did during some previous period. NPDES permits generally last five years and normally the discharger may discharge the full amount that its permit allows during the life of the permit, subject to the permit conditions and the general rules against causing a violation of water quality standards.

An interesting issue that has not been discussed is what should be done regarding permit renewals that do not propose new loadings. Most current NPDES permits were issued without anything like a proper antidegradation demonstration although all permits for new loadings issued since November 28, 1975 should have had one. (See USEPA

Handbook 4-1, 4-3) Moreover, a permit to pollute, even issued after a proper antidegradation demonstration has been performed, does not give the permittee a property right to use of the receiving water any more than being allowed to camp in a state park gives the camper a right to permanently settle at the campsite. See 40 CFR §122.5(b).

The fact that a permit was necessary to accommodate social or economic development for one permit period does not necessarily mean that it is necessary for the next permit period. Technology may have changed to make the permitted discharge less necessary. Also, the opportunity cost of allowing the discharger to use the assimilation capacity may have increased because, for example, another party that would create far more social or economic benefit needs to use it. Finally, it should be kept in mind that the nation is trying to eliminate discharges of pollutants into the nation's waters (33 USC §1251(a)(1)), not permanently license them.

For the time being given available resources, the answer as to renewals is probably to presume that any prior antidegradation analysis that has been done is still applicable in the absence of information that it has become outdated. However, the Agency, other dischargers who want to use the assimilative capacity, and members of the public should be allowed to raise the need for a new antidegradation analysis as part of the renewal process.

C. The Application and Supporting Data to be Required of Permit Applicants

There has also been much concern expressed by representatives of the regulated community that they will be forced to obtain much new information to even apply for a permit for a new or increased discharge. These concerns are largely directed at the draft Agency implementation procedures (Part 354), which the Board may decide not to address.

First, the Environmental Groups believe strongly that the draft implementation procedures are correct in generally requiring some research into the biological resources of the water to receive the new or increased discharge. To protect resident species, it is necessary in the case of each new or expanded discharge to consider whether the specific discharge proposed will affect an existing use. While shortcuts will be possible in cases where there have been recent studies of the receiving water by a state agency or other qualified body, consideration of possible effects on resident species will often require a new survey of what is living in the receiving waters. Protection of existing uses will often also require a chemical-by-chemical and whole effluent toxicity analysis of the effects of the proposed discharge.

However, none of the forgoing means that all applicants for increased discharges will be required to conduct expensive studies or prepare needless lengthy reports. Applicants are allowed to talk to the Agency to learn what, if any, new information is necessary. Indeed they are encouraged to do so. See proposed 354.104(a). The Agency is not going to require permit applicants to collect data or information that the Agency already has (Frevert Testimony, Nov. 17, 2000, Tr. 62, 72, 99, 155, 195) although the Agency will present the essential facts on which it relied in its written antidegradation analysis. See proposed 354.104(b)(2).

Further, it should be mentioned that the Illinois Department of Natural Resources has an important role to play in the implementation of proper antidegradation rules. IDNR is statutorily required to review permits for their potential effect on state endangered species and possesses much of the biological expertise in the state. The appropriate officials at IDNR should also review draft NPDES permits and 401 certifications to assure that resident species are not being overlooked in the analysis and that the potential of the proposed discharge to harm resident species is fully considered.

The final implementation procedures must clearly write IDNR into the process. Copies of applications for permits for new pollution should be sent to IDNR. Any studies

of the draft permit created by IDNR should be made available to the public during the public review period.

D. The Board Should Eliminate or Limit the Exception for General Permits

General permits pose a special problem for antidegradation policy. This problem could be addressed by the Board in this proceeding by striking the Agency's proposed exemption for general permits (proposed 302.105(d)(6)) or by limiting the Agency's proposed exemption to assure that particularly biologically significant waters, including waters harboring rare or sensitive species, are not affected. The Board might also order the reopening of the existing general permits based on the changes to water quality standards that will be effected by the Board through this proceeding or open a subdocket that would address general permits.

The Environmental Groups acknowledge that use of general permits is a significant administrative convenience for the Agency. They may be a bit too convenient. The public receives no notice of activities taking place under a general permit. (McSwiggen Testimony, Nov. 17, 2000, Tr. 184) The level of oversight exercised by the Agency over general permits and enforcement of general permit conditions appears to be very limited. At the same time, the types of pollution covered by general permits, including industrial storm water (Hearing Exhibit 8), construction run-off (Hearing Exhibit 9) and sewerage effluent discharge from lagoons (Hearing Ex. 11) clearly can have a very serious effect on the health on many of the Nation's waters. See, Federal Register Vol. 63, No. 6 January 9, 1998, 1536, 1539-41 (effects of industrial and construction storm water discussed).

Three of the four general permits that have been issued are not due to expire until 2003. The Agency's assurance that it will probably not allow use of a general permit where it might affect a water designated as an Outstanding Resource Water (Frevert Testimony, Nov. 17, 2000, Tr. 188) is of little comfort given that no such waters have yet

been designated. Further, while something vaguely akin to some antidegradation principles may have been applied generically when the current general permits were written in 1997 and 1998, the Agency and the public certainly did not give the problem the amount of thought warranted. In some cases, particularly for activities near streams containing endangered or sensitive species, much stronger controls against pollution are needed than are generally required by the conditions in the current general permits.

At a minimum, proposed section 302.105(d)(6) should be revised to make clear that the Agency should authorize no general permits for discharges to waters that are particularly biologically significant. IDNR may be able to quickly identify most waters for which this limitation on the use of general permits should apply.

E. Citizens Seeking Outstanding National Resource Water Designations Should not be Burdened Unduly

Another group of issues to be resolved by the Board relates to designation of "Outstanding National Resource Waters" or, using the IEPA's proposed terminology, "Outstanding Resource Waters" ("ORWs"). These issues principally relate to the cost of giving notice and the burdens to be placed on petitioners for an ORW designation.

The Environmental Groups believe that they should not be held to notice or proof requirements in seeking to protect water quality that are not applied to persons seeking to degrade it. While we have no objection to providing reasonable notice of ORW petitions, citizens should not be asked to send out huge numbers of bulky petitions to large numbers of people and entities. Some of the persons to whom notice is to be given under the proposed rules will be very hard even to identify.

Similarly, while citizens can be asked to state the likely economic effects of a proposed designation based on what they can easily learn of development plans, they cannot reasonably be asked to read the minds of potential developers or produce a Peat Marwick study proving the economic advantages of the designation. Petitioners for ORW designations should show the designation is justified. If reasonable notice of a

proposed designation is given, persons with development plans can be expected to let the Board know of any adverse effects of the designation on their economic prospects.

F. No Special Interest Exemption Should Be Allowed for the Mining Industry

The special treatment in complying with water quality standards afforded the mining industry by Subpart B of Title 406 is illegal or chimerical depending on how Subpart B is interpreted. The federal regulations, directing that state water quality standards must be based on sound scientific rationale and must contain sufficient parameters to protect uses (40 CFR § 131.11(a)), do not contain any proviso allowing mine discharges to endanger indigenous species or other existing uses. If subpart B is construed to grant any measure of exemption to the mining industry from compliance with protective water quality standards, it is illegal.

Specifically regarding antidegradation, the federal antidegradation policy, 40 CFR §131.12, does not contain any special provision exempting mining operations from antidegradation review. 35 Ill. Adm. Code 406.203(c), however, can be misread to allow a mining operation to demonstrate no adverse impact to receiving waters (i.e. no degradation) by showing that the mine discharge will have concentrations of sulfate and chloride lower than 3500 mg/L and 1000 mg/L respectively although these numbers greatly exceed the general Illinois water quality standards 35 Ill. Adm. Code 302.208 (g) (500 mg/L for both).

Subpart B of title 406 is probably more pointless than illegal. Subpart B should be construed to give mining operations little or no special status as to antidegradation or other water quality standards. Below the language in part 406 that seems to give the mining industry special favors, the regulation governing discharges from mines requires that IEPA assure that there is “no adverse effect on the environment in and around the receiving stream,” (406.203(e)(1)). The rules also require that an operator utilize good

mining practice designed to "minimize" discharges of listed pollutants. (406.204). These provisions require application of antidegradation principles to mining operations.

Clarity requires that the Board rule that mining operations must comply with Illinois' antidegradation policy. Unless the special provisions that can be read to favor mine operators are eliminated, Illinois' antidegradation policy will not be sound or in compliance with federal law.

G. The Board and the draft Agency Implementation Procedures (Part 354)

Illinois law divides authority for enacting environmental regulations between the Board and the Agency. See, Granite City Steel Division of National Steel Co. v Illinois Pollution Control Board, 155 Ill.2d 149, 613 N.E. 2d 719 (1993); see also, Permitting Procedures for the Lake Michigan Basin:35 Ill. Adm. Code 301, 302 and 309.141 (March 4, 1999) R99-8. Unfortunately, the line between a standard or rules to be enacted by the Board and a procedural regulation that may be adopted by the Agency has not always been clear.

It is also unclear what the Board should do regarding the draft Agency implementation procedures (Part 354) in this proceeding. The Environmental Groups do not disagree with the Agency's implicit decision as to what should be considered by the Board and what should be published as an Agency regulation. Perhaps, however, the Board should generally address any major issues it finds that relate to the draft procedures to give guidance to the Agency in its rule making. In any event, given that other parties have addressed the draft procedures and the Board has at least on one occasion adopted proposed procedures as Board rules (see Permitting Procedures for Lake Michigan R99-8), the Environmental Groups will address some of the issues relating to the draft Agency procedures. (see IV(E) below).

IV. Proposed Changes to the IEPA Proposals

The Environmental Groups joining in this memorandum are generally supportive of the IEPA proposal to the Board. We do, however, have a few substantive disagreements with the proposal and a number of suggestions to clarify or strengthen some of the language of the proposal.

A. Proposals for Improvements to 302.105

302.105 - Statement of Purpose - A change is proposed to state the purpose more precisely by mentioning protection of existing uses and maintaining waters with quality that is better than water quality standards.

302.105(a)(2) - The words "whose presence is necessary to sustain commercial or recreational development" should be stricken. This language could be misread to imply that only species falling in this limited category are worthy of full protection.

Further, examples of existing uses including drinking water and recreational uses would be helpful to show more fully of what must be protected.

302.105(b) - Title of the Subsection - Insert "National" between "Outstanding" and "Resource." While this is not a major issue, there would be some benefit in adopting the federal terminology of 40 CFR 131.12(a)(3) which uses the term "Outstanding National Resource Water." Corresponding changes are proposed throughout the proposal.

302.105(c) Title of Subsection - The title "High Quality Water" should be replaced with "Waters with Water Quality that is Better than the Standard." Because of the misnomer involved in discussing waters to which this section applies as "high quality"(see I.B.2 above), it is best to use a more accurate title for the subsection.

302.105 (c)(1) - Replace "exceed" with "is better than any of the." This eliminates the ambiguity created by use of the word "exceed." In this case, it is proposed to diverge from the federal language because the federal language is seriously flawed.

"Exceed" in one sense means "better than" and that is, of course, what is intended. However, there is an ambiguity in using "exceed" because "exceed" in the

quantitative sense generally means “greater than.” For most water quality parameters, to have a number that is greater than a standard is to violate the standard.

Addition of the words “any of the” is proposed to make more clear that a water failing to meet one or more water quality parameters is protected as to other parameters.

302.105(c)(2) - This might be corrected to state that “any increase in a pollutant loading that has occurred since November 1975" must be assessed. Language is also suggested to make clearer that an assessment will only take place in connection with a permitting decision.

Reference should also be made to hydrological modifications. Flow changes can seriously affect water quality (see Frevert Testimony, Nov. 17, 2000, Tr. 156; N.L, Poff and J.D. Alan, The Natural Flow Regime: A Paradigm for River Conservation and Restoration, Bioscience, 47:769-84 (1997)). Disturbances of natural conditions should be minimized. Accordingly, the Environmental Groups believe that the opening clause of 302.105(c)(2) should state:

> Any proposed increase in pollutant loading or disturbance of natural conditions, not been previously authorized by a NPDES permit or CWA section 401 certification, must be assessed pursuant to 35 Ill. Adm. Code Part 354 to determine compliance with this section prior to issuance of a NPDES permit or 401 certification.

302.105 (c)(2)(B)(iii) - To incorporate the concept of avoiding hydrological modifications that disturb natural flow and other natural conditions, the words “and disruption of natural conditions” should be added after “proposed load increase.”

302.105 (c)(2)(C) - a new subsection C is proposed to allow such loadings to be reassessed when there is reason to believe that the original assessment is no longer relevant. The proposed language states:

> An assessment may be required in connection with the renewal of a existing permit for a loading or disturbance of natural hydrological conditions that has been authorized since November 28, 1975, if there is good reason to believe that the discharge or disturbance is no longer necessary to accommodate important economic or social activity.

302.105(d)(1) - The phrase “not affecting existing uses” should be added to this provision to make clear that temporary lowering of water quality that affects existing uses cannot be tolerated. Although this result follows under other water quality standards, clarity is added and no harm done by repeating this language here.

302.105 (d)(6). This subsection language, which exempts discharges permitted under a general permit from making a facility-specific antidegradation review, should be stricken. At a minimum, the Board should add language to the end of the section which states:

> however the Agency shall assure that individual permits are required of all new loadings or hydrological modifications subject to NPDES permitting or 401 certification that may affect waters of particular biological significance, including waters containing rare or pollution intolerant species.

A list of such waters might be appended.

Alternatively the Board should order that the existing general permits all be reopened for reconsideration in light of the new antidegradation standard.

B. Proposals for Improvements to Section 303.205

303.205 Introductory words - For the reasons raised by the Board in its questions of the Agency, see, December 6, 2000, Tr. 42-3, “uniquely high” should be replaced with “outstanding.” At least some of the dictionary definitions of “unique” are far too restrictive.

303.205 (b). This section which states that zero 7Q10 streams will generally not be considered for ORW status, should be deleted. It is not uncommon for streams that occasionally have no flow to be rich in rare biological life and many such streams support recreational activities such as birding, hiking and other activities.

C. Proposals for Section 106

106.992 - This proposed provision provides for filing a petition to create (or repeal) an ORW, and requires that extremely broad notice be given. For petitioners seeking to give ORW protection to be required to give the petition to IEPA and IDNR in addition to the Board is acceptable. Giving notice to other state and local officials and current NPDES permit holders who discharge into the water to be designated is also tolerable as long as IEPA can identify them for the petitioners and it not necessary to send the whole petition.

The requirement proposed by the Agency is to give notice to NPDES permit *applicants*, Section 404 permit *applicants* and "to other persons as required by law" is unreasonable. Petitioners will not generally know who all these people are and IEPA does not even appear to know who some of these persons might be. Further, it appears that this "other persons" language was simply copied from other provisions without consideration as to whether there are such "other persons" in this case.(see Frevert Testimony, Nov. 17, 2000, Tr. 147)

On the other hand, a requirement should be added that parties seeking to repeal an ORW designation should attempt to give notice to the persons who petitioned for the designation.

106.994 (e) - requires petitioners to produce unreasonable amounts of economic information to which they will have little access. Much of the proposed subsection should simply be stricken.

D. Proposal to Amend Existing 35 Ill. Adm Code 406 Subpart B

Subpart B should probably be repealed in its entirety by the Board as soon as possible. However, for the present proceeding it is sufficient to add a new third sentence to 35 Ill. Adm. Code 406.203(b) that states:

> However, in no case shall a permit applicant be exempted from complying with the antidegradation standards of 35 Ill. Adm Code 302.105.

E. Proposals for Improvements to the Agency Implementation Rules

Section 354.102 - An additional clause in this procedure should state:

> An assessment may be required in connection with the renewal of a existing permit for loadings or disturbances of natural hydrological conditions that have been authorized since November 28, 1975, if there is good reason to believe that the discharge or modification is no longer necessary to accommodate important economic or social activity.

Section 354.103 - The permit applicant will be required to provide the Agency with information on the physical, biological, and chemical condition of the waters in question. Although we believe that the rule provides for this, for clarification purposes, the rule should make clear that the Agency has the authority to require the applicant to collect additional data if adequate data do not exist. For example, if a new discharge was proposed on a water body where no data has ever been collected on mussel populations, but rare mussels are known to exist elsewhere in the watershed, the Agency should require additional data to be collected.

Subsection 354.103(c)(1) should be stricken. Provision of centralized sewerage service is not a benefit if such service will promote pollution or sprawl and quality sceptic treatment is required.

This section should also provide that a copy of the application will be delivered to the appropriate office of the Illinois Department of Natural Resources.

Section 354.104 - The rule should clearly state that other agencies will have input into the demonstration review. In determining the existence of existing uses or impacts to existing uses other agencies may be able to provide information and expertise unavailable within the Agency. In addition to IDNR, local park districts may be able to provide information on existing recreational uses of waters.

Section 354.105 - Paragraph (b) should be changed to, “Identification of the affected water segment, any downstream water segment also expected to experience a lowering of water quality, characterization of the designated and ~~current~~ existing uses of

the affected segments and identification of which uses are most sensitive to the proposed load increase…"

This change will make 354.105 consistent with Part 302 and with the intent of the antidegradation policy to protect existing uses.

354.104(a)(2) - provides for disappointed permit applicants to take an immediate review. It is unclear how citizens could get involved in the process if they agree that the permit should be denied. Procedures are not acceptable which have the effect of allowing only the polluter to participate in an appeal. Some sort of notice to the public of appeals should be required if the IPCB rules do not already provide for such notice.

CONCLUSION

The Board should adopt the antidegradation standards proposed by the Agency with the changes presented and discussed in this memorandum. The Board should also act to assure that the Agency implementation procedures that will be adopted following this proceeding are consistent with the standards adopted by the Board and the goal of the Clean Water Act to maintain the chemical, physical and biological integrity of the nation's waters.

Respectfully submitted,

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